

# Building A DREAM

It's one thing to build a bike from its constituent parts – it's another, far more impressive, thing to make it from sections of tubing, using a welding torch and a sandblaster. Rachel Hayward did just that when she went to Swallow Bicycles by Design for a frame-building course. She tells **Lara Dunn** all about creating a bike from scratch

**T** Ironbridge Gorge, known as the birthplace of industry, became, in 1986, one of the first UK sites to be awarded World Heritage status by UNESCO. The area's industrial past is still in evidence, in the shape of furnaces, factories, workshops and canals. Even the names of the towns and villages – Coalbrookdale, Ironbridge and Coalport – evoke the region's history. It would seem fitting, then, that this corner of rural Shropshire is the location of a bespoke maker of hand-built bicycle frames – Swallow and Bicycles by Design. Yet, it is

Swallow take the notion of a custom-fitted frame to a new level. It does offer off-the-peg frames that can be built up into bikes fitted carefully to the rider using complex sets of measurements and meticulous selection of components, but it's the custom- and hand-built frames that really sets the company apart.

#### BY THE NUMBERS

Rather unusually, Swallow also offers a frame-building course, which involves a client building their own frame from scratch, with the expert assistance of Pete and Rob, based on a geometry discussed and agreed between client and Swallow and using materials and equipment in the Swallow workshop.

One of the first women to take on the challenge of building her own bike frame from scratch is 30-year-old Rachel Hayward. Rachel, from near Portsmouth, is a stress engineer in the aerospace industry, but says that the term "engineer" may be misleading, given that most of her work is done using a computer, rather than a welding torch and file. Her decision to build her own frame was mostly prompted by what is probably a common issue for women looking for the right bike.

'I'm short (5'2") with slightly odd proportions – short legs,' she says. 'I have never had a bike that fitted me or looked good. It's been very hard to find frames in the past, and even then they have never been quite right.'

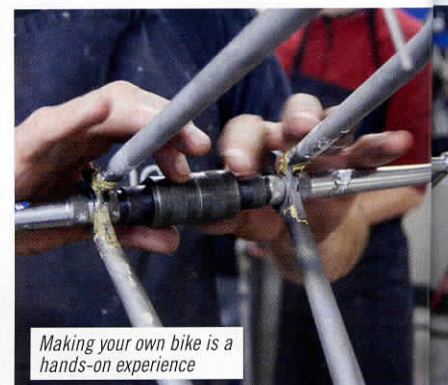
So she decided to make her own. 'It took an intense week of working 9-5.30, although the bikes were finished off by the guys at Swallow. You're on your feet all day. I'm basically office-based, so this was a big difference for me. Although I'm relatively fit, I was tired at the end of every day.'

#### FRAME BY FRAME

The process begins with a fitting and discussion of what sort of bike Rachel is looking for (a road bike) and then the selection of tube gauge and material, before the blueprints are drawn up and the work begins. We visit her on the final day of her five-day graft, as the frame is starting to really take shape and resemble the type of frame you'd expect to see in a bike shop, although it's unpainted. Pete and Rob are there every step of the way to encourage, guide and mentor, but never to patronise or lose patience. 'We are essentially here on holiday,' says Rachel. 'You



initially a surprise to learn that Pete Bird, one of the partners and frame builders (along with Rob Wade), was trained as a silversmith. However, it is clear from the beautifully finished bicycles in the showroom that such delicate skills are a very important part of Swallow's bike-building process.



Making your own bike is a hands-on experience



Rachel's work is examined

**'We are essentially here on holiday. You wouldn't want someone shouting at you, would you?'**



Things begin to heat up in the bike-building class



It's a frame. Up

wouldn't want someone shouting at you, would you? But he [Pete] is very chilled. It's a beautiful spot here, it's not like you're on an industrial estate. And the guys at Bicycles by Design made us feel like one of the family from the beginning.'

From starting with bits of metal tubing, things quickly progress to cutting, welding, filing and finally joining bits together to make what is recognisable as a bike frame. And a pretty one at that.

**NEW CHALLENGES, NEW ACHIEVEMENTS**

So, other than the fact that she's finishing up with a bike that's perfectly suited to her shape, size and riding style, what has been the best bit of the experience for Rachel? 'There is a great sense of achievement when creating something and working on it from start to finish. Sandblasting is horrible though.' It has to be said, we're not keen on the sound of the file either!

And has she enjoyed the experience? 'Yes, very much so, I am looking forward to doing another course in the future. The bike is going to be called Turtle, in homage to my old Fiesta. I find I look after them better if I give them names.'

The cost of the five-day course is £850. The materials (tubing etc) cost approximately another £300 and it's £145 to have the frame professionally painted. Rachel has yet to buy all the extra bits to fit to the frame, such as wheels, bars, drivetrain and the like. But what a bike it will be.

[www.bicycles-by-design.co.uk](http://www.bicycles-by-design.co.uk)



And here are a few we made earlier